

Cost and Management

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AN APPRAISAL OF MANAGEMENT

By MICHAEL ALBERY 212

Dr. Michael Albery, professor at Boston College, was formerly connected in executive and staff capacity with Socony-Vacuum, Anaconda-Copper-Giesche, Ford-International and others. He is the author of numerous papers on finance and industrial management. His last publications for Cost and Management were "The Cost of Cost" and "Basic Data".

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Rudolph M. Ashner, a partner in the Werner Textile Consultants of New York, has been working in the industrial engineering field for 25 years. After receiving his degree from the Technical Institute of Berlin, he worked in a number of industrial plants in England, Switzerland, Germany and the Near East. Mr. Ashner came to the United States in 1939 to specialize in industrial engineering for textile manufacturing. He is a member of the Society for the Advancement of Management, the American Management Association, Society for Testing Materials and Society for Quality Control.

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Editorial Comment . . .

The New Look in Accounting Titles

What has become of the Chief Accountant? Somewhere in the rush of 20th century business, the old familiar offices of chief accountant and comptroller are rapidly disappearing. They are hiding behind other, newer titles.

The Comptroller has become the Central Staff Manager of Accounting, the plant accountant is now the Manager of Factory Accounting, and a number of accountants may be found with titles of Supervisor of Cost Control, Staff Cost Controller or Accounting and Auditing Specialist.

In this age of professional accountancy, the very mention of the word "bookkeeper" brings an audible sniff of superiority. But why should such time-honoured expressions as Chief Accountant and Comptroller become suspect? If the trend continues, the day will come when a man will be afraid to admit that he is an accountant at all.

It is of interest to watch the current trend in accounting titles. It is understandable to a degree. We have been taught to think more precisely about organization. We read Taylor, Fayol and Urwick for advice on the intricacies of administration. We believe, and rightly so, in a more careful definition of duties and responsibilities than was in vogue a generation ago. There has been a definable drift in all concerns toward a greater degree of specialized authority.

Many new types of service positions have arisen in the last quarter century. Planning and Production Control have been separated from the Superintendent's office and have either a supervisor or manager over them. Stores and Material Control Managers abound. Quality Control is the "new look" word and we dare not mention "inspection" to anyone. One refers now to a Technical Control Centre which houses, or may house, depending on local interpretation, inspection, laboratory testing, statistical method work and preparation of samples. No wonder many of the old guard superintendents and plant managers are confused these days.

Accounting is no exception. Formerly, one man with the simple title of Chief Accountant supervised the whole financial show and probably administered the office as well. Now, however, many specialized functions exist; costing, budgeting, systems, internal auditing, and, if you are big enough, analysts galore. The same old boys seem to be doing these jobs which apparently points out special adaptability rather than special training, which is a good thing in any case.

Out of all this splurge of title adjectives, what are we trying to accomplish? Just what all these new designations mean is at times a mystery to the accountant, let alone the uninitiated. Does General Financial Manager give a better functional description than Comptroller? Some purists will immediately exclaim that they are not the

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same thing. However, at the risk of being an old hat, it is suggested comptroller is entirely adequate. For the same reason, Plant or Works Accountant is as good, if old fashioned, as Manager of Factory Accounting. Incidentally, don't enter the fray on comptroller versus controller; the Oxford dictionary states that comptroller is a misspelling of controller.

The trend toward the manager title is questionable. Can we not still reserve this for one who directs all phases of a business? The assistant title is necessary for large concerns, but again is it not an unnecessary load for the man who may be termed "Assistant Manager in charge of analysis of source and disposition of funds statements". Let us leave out the "assistant to's" and the "in charge of's". Rather wisely, one company, when creating an assistant, does so on the basis of "assistant to" and for six months only. It indicates a probationary and training period and at the end of the trial term the full position title is assumed.

There is nothing wrong with the term Accountant, Plant Accountant, Chief Accountant, Comptroller and Vice-President of Finance and so on. They are time-honoured, distinctive, short and descriptive. They get away from the drab uniformity of qualifying every service function by Manager and Supervisor. Most people, even laity, understand them for what they are and that, in itself, is a desirable accomplishment for the "keeper of the accounts".

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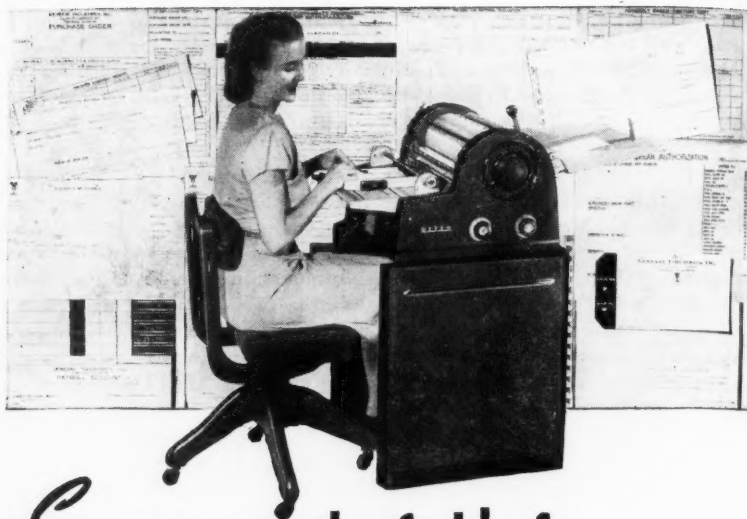
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C & M Round-Up . . .

By N. R. BARFOOT, R.I.A.

Workmen's Compensation

Present amendments to provincial Workmen's Compensation Acts show:

MANITOBA

Compensation base raised from $66\frac{2}{3}$ to 70% of average earnings.

Dependents under 16 now receive \$20.00 per month.

Orphans' allowance up \$10.00, to \$30.00 per month.

Widows' pensions raised to \$50.00 per month.

NOVA SCOTIA

Waiting period reduced from 7 to 5 days.

Dependents under 16 now receive \$20.00 per month, up \$5.00 per month.

Orphans' allowance up \$5.00, to \$30.00 per month.

ONTARIO

Inter-provincial bus, truck and aircraft employees now covered by accident compensation.

Labour normally resident in Ontario, and working for an Ontario company, now covered if on business outside province for more than six months.

Widows' monthly allowance raised \$25.00, to \$75.00.

Dependents' under 16 raised \$13.00, to \$25.00 per month.

Orphans' allowance up \$15.00, to \$35.00 per month.

Federal Payroll

Total payroll for the Federal Government this year, 1 billion.

Regular employees number 135,000. This is compared to 115,000 during the war, when all sorts of special wartime services were in effect.

Population increase since 1939 is 40%. Government payroll up 20%.

Nearly 1,000 people a month were added to the Government rolls last year.

The Government is the largest single employer in the country.

Church Construction

It will be of interest to note recent figures on church extension in Canada.

34 millions will be spent in 1954, equal to the amount planned on chain stores.

28 millions will go for new construction and 6 millions for repairs.

One large denomination built 350 churches in the 25 years, 1925-1950. In 1950 it was thought that 150 new buildings would be needed by 1955. The actual figure will be 250.

Many denominations use the revolving fund type of financing. The central organization builds and owns the new church when local financing is insufficient. Then the new congregation gradually buys back the property.

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Insurance

More and more insurance has been bought, but less in proportion to the national income and personal savings.

These are some comparisons:

	1939		1949		1953	
National income						
(millions)	\$4,373		\$13,194		\$18,977	
Personal savings						
(millions)	\$ 320	7.3%	\$ 1,005	7.6%	\$ 1,546	8.2%
Insurance premiums						
(millions)	\$ 220	5%	\$ 425	3.2%	\$ 560	2.9%

Those Combines

The act was passed in 1923 and published reports since that time total 38.

Since 1946, twenty-two investigations have been made.

18 prosecutions have been registered.

It is estimated that at least 14 formal investigations are under way. Some of the cases involved were dental supplies, optical goods, bread baking, flour milling, flat glass, matches, rubber goods, coarse papers, and electric wire and cable.

Highways and Byways

Did you know that 2.7 billions have been spent in Canada on roads since 1954? This is more than the total spent since Confederation to that date.

Only 30% of Canadian roads are surfaced, and only a fraction of these can be called high standard highways.

Highway construction has never kept pace with demand. During the thirties, a lack of money prevented work, and in the war years, lack of money, men and materials seriously retarded road building. From 1930 to 1945, Canada's car population rose from 1.2 to 1.5 million. Today there are 3.5 million cars.

Most provinces are spending more on roads than the revenue from users, so that some new and additional revenues are needed.

Suggestions are: Heavier taxation on commercial users, toll roads, application of the sales and excise tax presently collected by the Federal Government on autos, to provincial road building.

Summer Refreshments

Canadians drink their share of beverages. These are a few country-wide figures:

Beer — 8.2 million bottles last year — up 46% since 1946.

Soft drinks total 130 bottles per capita per annum, or 2 billion bottles.

Ice cream averages 2 gallons per person or 30 million gallons annually — this is a 14% increase since 1946.

COST AND MANAGEMENT

PERSONALS

A. R. Barber, R.I.A., has been appointed Assistant Office Manager of the Sarnia division of Fiberglas Canada Limited. A member of the Grand River Chapter of the Ontario Society, Mr. Barber moves to Sarnia after serving a number of years at the company's head office in Guelph.

E. G. Black, B.Com., C.A., R.I.A., has joined the Weatherhead Company of Canada Limited, St. Thomas, Ontario, as Comptroller. He is a member of the Windsor Chapter, and for the past four years has served as Comptroller of a concern in that city.

H. V. Clark, R.I.A., a member of the Niagara Peninsula Chapter, has been appointed General Manager of the Humberstone Shoe Company Limited.

J. A. Fuller, R.I.A., President of Shawinigan Water and Power Company Limited, and associated companies, has been elected a Director of Sun Life Assurance Company. Mr. Fuller is a member of the Montreal Chapter.

E. W. Harrison, R.I.A., has joined Avon Products Canada Limited, as accountant. Mr. Harrison is a member of the Montreal Chapter and was formerly with Canada Packers.

Walter Nobbs, C.A., R.I.A., of the Calgary Chapter, has been appointed Auditor, Board of Public Utilities Commissioners, Province of Alberta.

H. A. Pakrul, R.I.A., has received a promotion to Cost Accountant, Atlas Steels Limited, Welland. Mr. Pakrul is a member of the Niagara Peninsula Chapter and will serve as Vice-Chairman of the Chapter in 1954-55.

O. W. Parsons, a member of the Calgary Chapter, has been transferred to Toronto, where he will assume the position of Accounting Machines Sales Instructor for Canada, National Cash Register Company of Canada, Limited.

OBITUARY

A. J. Davis, R.I.A.

It is with much regret that we announce the death of A. J. Davis, R.I.A., a Charter member of the Calgary Chapter.

Mr. Davis was a keen worker and supporter of the Chapter since its inception, and will be missed by all of the members.

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Philip T. R. Pugsley, C.A.

Suite 14, The Linton,

1509 Sherbrooke St. West

Montreal, Que.

Current Articles of Interest . . .

A compilation of current articles, available to members, on loan from the library of the Society.

ACCOUNTING

ACCOUNTING AS AN AID TO PROFITS, by W. Scott — The Accountants' Journal — Feb. '54.
ACCOUNTING IN THE EDUCATION OF MANAGEMENT, by J. H. Jackson — The Accountants' Journal — Mar. '54.

OLD AND NEW IN MANAGEMENT AND ACCOUNTING, by A. C. Littleton — The Accounting Review — Apr. '54.

ACCOUNTS RECEIVABLE

ACCOUNTS RECEIVABLE AT FIELD AVIATION — Business Management — Apr. '54.

BUDGETS AND BUDGETING

CONTROL BUDGETING IN COMMERCIAL BANKS, by T. W. Harris — N.A.C.A. Bulletin — Apr. '54 — Sec. 1.

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PERFORMANCE BUDGETING FOR THE PHILIPPINE GOVERNMENT, by A. Q. Yoingco — The Accountants' Journal — Mar. '54.

CAPITAL

SHARE CAPITAL IN FOREIGN EXCHANGE ACCOUNTING, by E. Fuerst — The Accounting Review — Apr. '54.

CHARTS AND GRAPHS

A BRITISH STUDY IN PROFIT GRAPHS, by A. W. H. Lamond — N.A.C.A. Bulletin — Apr. '54 — Sec. 1.

CONSTRUCTION AND CONTRACTING

CONSTRUCTION ACCOUNTING — COMPLETED CONTRACT BASIS, by C. S. DeBanto — N.A.C.A. Bulletin — Apr. '54 — Sec. 1.

COST CONTROL

BETTER STANDARDS FOR CLOSER COST CONTROL, by W. P. Canfield — Factory Management and Maintenance — May '54.

COST CONTROL FOR MARKETING OPERATIONS — GENERAL CONSIDERATIONS — N.A.C.A. Bulletin — Apr. '54 — Sec. 3.

STANDARD COSTS IN CONTROL AND PLANNING, by G. K. Bryant — N.A.C.A. Bulletin — May '54 — Sec. 1.

DEPARTMENT STORE

THE IMPACT OF CHANGING PRICES ON A DEPARTMENT STORE, by D. A. Corbin — The Journal of Accountancy — Apr. '54.

DEPRECIATION

DEPRECIATION, by H. L. Hiscox — Cost and Industrial Accounting Review — Spring '54.

DEPRECIATION'S FIRST DUTY — PROFIT MEASUREMENT, by E. L. Zieha — N.A.C.A. Bulletin — May '54 — Sec. 1.

DEPRECIATION IS A PERIOD COST, by O. E. Hanson — N.A.C.A. Bulletin — May '54 — Sec. 1.

DEPRECIATION POLICY UNDER CHANGING PRICE LEVELS, by E. O. Edwards — The Accounting Review — Apr. '54.

A FREE-CURVE DEPRECIATION METHOD, by G. W. Lewis — N.A.C.A. Bulletin — May '54 — Sec. 1.

CURRENT ARTICLES OF INTEREST

HOW TO GET "REPRODUCTION COST NEW", by A. L. Benjamin — N.A.C.A. Bulletin — May '54 — Sec. 1.

INADEQUATE DEPRECIATION CHARGES CALL FOR ACTION, by C. Crocheron — N.A.C.A. Bulletin — May '54 — Sec. 1.

IS OPERATIONAL DEPRECIATION THE ANSWER? by R. B. Oliver — N.A.C.A. Bulletin — May '54 — Sec. 1.

USING REPLACEMENT-VALUE DEPRECIATION IN COSTS, by R. K. Mirrielees — N.A.C.A. Bulletin — May '54 — Sec. 1.

WHAT DO EXECUTIVES THINK DEPRECIATION IS? by R. G. James — N.A.C.A. Bulletin — May '54 — Sec. 1.

DIRECT COSTING

DIRECT COSTING — SOME FACTS AND FALLACIES, by A. S. Donnelly — The Australian Accountant — Feb. '54.

SOME OBSERVATIONS ON THE DIRECT COST METHOD, by John B. Inglis — The N.Y. Certified Public Accountant — Apr. '54.

SOME THOUGHTS ON THE "DIRECT COST" METHOD FOR VALUING INVENTORIES, by A. R. Kassander — The N.Y. Certified Public Accountant — Apr. '54.

EDUCATION AND TRAINING

FORMAL EDUCATION AND INTERNAL AUDITING, by S. G. Hennessey — The Canadian Chartered Accountant — May '54.

WHAT EDUCATION MEANS TO ME: A PHILOSOPHER, by Rev. P. J. Kingston — The Canadian Chartered Accountant — Apr. '54.

FINANCIAL STATEMENTS

WHO SHOULD SIGN THE BALANCE SHEET FIRST? by J. M. Greenwood — The Australian Accountant — Feb. '54.

HOSPITAL ACCOUNTING

ADVANTAGES OF FUND ACCOUNTING FOR HOSPITALS, by W. W. B. Dick — The Canadian Chartered Accountant — Apr. '54.

CHARACTERISTIC PROBLEMS OF HOSPITAL ACCOUNTING, by E. L. Zieha — The N.A.C.A. Bulletin — Apr. '54 — Sec. 1.

INTERNAL AUDITING

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INVENTORIES

APPLICATION OF STATISTICAL SAMPLING TECHNIQUES TO LIFO INVENTORY VALUATION, by B. M. Rowles — The Accounting Review — Apr. '54.

A DEFENCE OF THE LIFO METHOD, by R. T. Concepcion — The Accountants' Journal — Mar. '54.

INVENTORY PRICING AND CHANGES IN PRICE LEVELS BY COMMITTEE ON CONCEPTS AND STANDARDS — The Accounting Review — Apr. '54.

LOWERING RETAIL INVENTORY SHORTAGES, by H. A. Tanzer — N.A.C.A. Bulletin — May '54 — Sec. 1.

SOME THOUGHTS ON THE "DIRECT COST" METHOD FOR VALUING INVENTORIES, by A. R. Kassander — The N.Y. Certified Public Accountant — Apr. '54.

MACHINERY MANUFACTURE

MEASUREMENT OF REAL ECONOMIC EARNINGS OF A MACHINERY MANUFACTURER, by J. Dean — The Accounting Review — Apr. '54.

MANAGEMENT

ACCOUNTING IN THE EDUCATION OF MANAGEMENT, by J. H. Jackson — The Accountants' Journal — Mar. '54.

COST AND MANAGEMENT

OLD AND NEW IN MANAGEMENT AND ACCOUNTING, by A. C. Littleton — *The Accounting Review* — Apr. '54.

MANAGEMENT ACCOUNTING

EUROPEAN VIEW OF MANAGEMENT ACCOUNTING IN THE U.S. — *N.A.C.A. Bulletin* — Apr. '54, Sec. 1.

MANAGEMENT ACCOUNTING IN THE UNITED STATES, by L. O. Morley — *The Canadian Chartered Accountant* — May '54.

MANAGERIAL ACCOUNTING — TWENTY YEARS FROM NOW, by H. C. Greer — *The Accounting Review* — Apr. '54.

STANDARD COSTS AND COSTING

HOW AND WHY OF STANDARD COSTS, by J. C. Jenkins — *Cost & Industrial Accounting Review* — Spring '54.

STANDARD COSTS IN CONTROL AND PLANNING, by G. K. Bryant — *N.A.C.A. Bulletin* — May '54 — Sec. 1.

STANDARDS

BETTER STANDARDS FOR CLOSER COST CONTROL, by W. P. Canfield — *Factory Management and Maintenance* — May '54.

STATISTICS

A BIBLIOGRAPHY ON THE APPLICATION OF STATISTICAL METHODS TO ACCOUNTING AND AUDITING, by R. M. Trueblood and R. J. Monteverde — *The Accounting Review* — Apr. '54.

A REVIEW OF STATISTICS IN RELATION TO COST ACCOUNTANCY, by R. Glendinning — *The Cost Accountant* — Apr. '54.

TERMINOLOGY

ACCOUNTING TERMINOLOGY, by I. Goldberg — *The Australian Accountant* — Feb. '54.

UNIFORMITY IN TERMINOLOGY, by M. Clements — *The Canadian Chartered Accountant* — Apr. '54.

TRUCKS AND TRUCKING

A BASIS FOR TRUCK-HAUL COST DETERMINATION, by I. Houghton — *N.A.C.A. Bulletin* — Apr. '54 — Sec. 1.

TUCKER REPORT

RETIREMENT BENEFITS — THE MILLARD TUCKER REPORT, by I. R. G. — *The Accountants' Magazine* — Apr. '54.

ADDRESS OF PUBLICATIONS

The Accounting Review, The Ohio State University, Columbus 10, Ohio.

The Canadian Chartered Accountant, 10 Adelaide St. E., Toronto, Ontario.

The Accountants' Journal, 304 Burke Bldg., Manila, Philippines.

The Accountants' Magazine, 27 Queen Street, Edinburgh 2, Scotland.

Cost & Industrial Accounting Review, Hope House, Gt. Peter St., London S.W.-1.

N.A.C.A. Bulletin, 505 Park Ave., New York 22, N.Y.

The General Accountant, 163 W. Hastings, Room 338, Vancouver, B.C.

The New York Certified Public Accountant, 677 Fifth Ave., New York 22, N.Y.

The Australian Accountant, 37 Queen Street, Melbourne C-1, Australia.

The Cost Accountant, 63 Portland Place, London W-1, England.

Business Management, 100 Simcoe Street, Toronto 1, Ontario.

The Accountants' Journal, 86 Lambton Quay, Wellington C-1, New Zealand.

American Management Association, 330 West 42nd St., New York 36, N.Y.

Factory Management and Maintenance, 330 W. 42nd St., New York 36, N.Y.

The Controller, 1 East Forty-Second St., New York 17, N.Y.

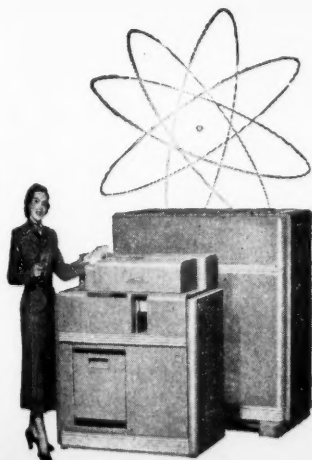
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An Appraisal of Management . . .

By MICHAEL ALBERY

Professor, Boston College, Boston, Mass.

This is the first of a series of papers on the Appraisal of Management. The author is basing his evaluation on the availability of sound policies. In the following articles he will discuss specific methods of appraisal.

THE conduct of modern business has ceased to be a matter concerning only the owner-manager or the professional executive. It has become a matter of public concern. In most fields of economic activity, large corporations are active, and engaged in multi-million-dollar production and sales. The nation's corporations employ millions of people; they provide us with our daily necessities; they transport most of the goods we consume; they supply us with the utilities we need daily and hourly. What the executives of these corporations do or fail to do affects the life of the nation.

The executives of the nation's corporations are not responsible directly to the nation in the same way as are the government officials, the civil servants, or political appointees. Their behaviour and actions, however, can be just as beneficial or just as detrimental — perhaps more detrimental to many — as the actions of civil servants, paid directly from government tax revenues.

The executives of the nation's corporations are conscious of the fact that the nation's eyes are upon them. They live in glass houses, whether they like it or not. Formally they are responsible only to their board of directors, or, if they are directors, to the stockholders. This is purely a legalistic responsibility. The public can not place them in their positions, but they may be subjected to severe criticism by the public just as much as to criticism by the stockholders.

We are daily appraising the politicians for what they say and do or fail to do. We consider it our inalienable right to do so. Children often appraise their parents. Students like to appraise their professors, and professors appraise college presidents. No taboo stands in the way of the appraising of management. Most executives are aware of the fact that they are being appraised. They are also being appraised by their own fellow-workers and perhaps nobody appraises corporation executives as severely or as accurately as do their own subordinates.

Groups Interested In Appraising Management

The commercial banker makes no secret of the fact that he is appraising management ability, integrity, ethics, just as carefully as he is examining the results of management activities presented to him in the form of financial statements and special reports.

The investment banker has a good look at the management's background, its experience in business in general and experience in its special

APPRAISAL OF MANAGEMENT

field of activity, its short-term and long-range plans, before embarking upon any new investment ventures.

Financial analysts, working for multi-million-dollar mutual funds and trusts, base their decisions on the appraisal of corporate management. When contemplating a plan to invest in a certain industrial field, they are likely to choose a company with a management they consider more progressive and better qualified, rather than one which so far may have shown better results.

Not only the commercial banker, the investment banker, the representative of a mutual or trust fund and government agencies, but stockholders, suppliers and customers also are interested in the appraisal of management, and so may be management itself.

As nothing is as difficult as self-criticism, a firm may approach consultants with an assignment to make a study of the management and submit a report of findings with suggestions for improvement.

Object of Appraisal

It may be proper at the outset to specify what exactly is going to be appraised — the enterprise as a whole or the people in charge of it. An enterprise is generally judged by its financial success or its prospects for the future. The appraisal of an enterprise as a whole lies within the field of financial analysis as far as the past and the present are concerned and in the field of economic forecast and market research as far as the future is concerned. The financial results may be good, either because a company has a virtual monopoly, or because it has enjoyed particularly good luck or because it occupies an exceptionally favourable position, with no noteworthy contribution being made by management.

The people in charge of an enterprise, whether they are members of the board of directors, presidents, executive vice-presidents, senior or junior executives, can be judged only in action. A prospective management which does not perform executive functions, can be appraised only for what it might do if it were in charge. We are, therefore, endeavouring to appraise management in action, in the light of its activities and in the light of the objectives and policies it has charted for itself.

Appraising management, we are appraising human beings. No physical measuring devices can be applied to measure such things as integrity, skill in handling people, honesty, ethics in business, or ability to make quick correct decisions. All these features are judged on the basis of observation. Observations made by different individuals may lead to different results. Would the ability to handle people be judged by the number of complaints made against a supervisor? Would this ability be judged by the number of people an executive has hired and/or fired? Is it possible to evaluate good and bad decisions statistically?

COST AND MANAGEMENT

Some men manage to establish for themselves a good reputation, which seems to follow them throughout their career. In spite of visible defects, nobody dares to question the superior ability of these executives, fearing simply to be considered incompetent. Other men with great ability and experience have encountered a series of unfavourable situations and have never enjoyed the reputation they deserve. When they move from one position to another in the same company, or join another company, their reputation is likely to follow them. Commercial bankers, investment bankers, financial analysts may view the future activities of a company in the light of the opinion they have formed about the men taking over executive responsibility.

Management is responsible for the initiation, formulation and execution of sound *policies*. It seems proper, therefore, to appraise management on the basis of the policies it has adopted in the main domains of its field of action. To execute well-conceived policies a properly functioning organization is needed. No appraisal of management would be complete without an examination of the framework within which policies are to be carried out. Nor would it be complete with a study of the policies pertaining to tools and facilities, or of those pertaining to the personnel entrusted with the achievement of the objective within the limits of the existing organization and with the tools provided.

The study of policies and their execution, on which we wish to base an initial evaluation of management does not exclude the use of financial analysis of operations.

Technical Difficulties

The ability to discern and judge other people's work may be subject to dispute. When a teacher appraises his students, it is assumed that he is competent in the matter. To what degree is this also correct when mature people outside a company judge the activities of other mature men working in it?

When trying to appraise management we are certainly not facing an easy task. We are facing a series of technical difficulties. We have to keep in mind that management is a collective concept. A company may have several managers, several executives of varying calibre. One of them may be backed by large investment of his own or may be a strong and domineering personality, reducing the rest to the role of yes-men anxious to keep well-paid jobs. Alternatively, management may be a committee set-up, where the experience and knowledge of each participant is effectually utilized to the company's best advantage.

Management is conscious of being appraised. When the financial analysts of a mutual fund or a trust company from New York or Boston visit a plant in Georgia or Kentucky, the management is aware of the fact that they have not come as tourists. The possibility that some competent analyst or trust representative may drop in and try to find out

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pertinent information which is not readily available in the customary report and statement certainly obliges executives to be on the alert. If it contributes to better management, to better care of stockholders' interests, all stockholders benefit from it, though not all pay for the service.

Attempt to Define Good Management

The distinctions differentiating bad, average, good and excellent management are rather subtle. Besides a fundamental knowledge of business principles and a knowledge of the specific field of activities, executives must possess qualities of leadership. This means they must have the ability to make decisions, and to make mostly good decisions. No management can possibly make 100% good decisions and it needs courage in an executive to assume responsibility for his decisions, and not pass the buck on to colleagues or subordinates for the wrong ones. Good management must willingly delegate authority, and should not interfere in the area of action of subordinates once the authority has been delegated.

Good management at every level of authority should be constantly in effective charge, whether the situation be normal or emergency. It should neither drift under pressures nor rush precipitately into unnecessary risks.

To fulfill these requirements management should be not only aware of its objectives, but enthusiastic about them. The objectives should be supported by *basic policies*. Lack of policies and constant improvisation is bound to engender confusion, within and without. Confusion not only embarrasses management, but also contributes to the discredit of its authority.

Policies in a well-managed enterprise are not to be considered as mere paper-work. The spirit behind them is just as important as the meaning or purpose embodied in them. Policies have to develop in an atmosphere of mutual respect and confidence. Where terror reigns, where committees are just window-dressing, where junior executives keep their jobs by degenerating into yes-men, where all decisions are in one pair of hands, where established policies are broken by a dictator's unpredictable whims, management would certainly deserve to be characterized as mediocre.

Basic Method of Appraisal

Since we wish to appraise, that is to evaluate or estimate management's quality, we have to create a set of rules, yardsticks, criteria which will enable us to arrive at such appraisal. When a physician examines a patient, he compares the health of the patient with certain conditions he has learned to consider as normal. When he finds out that his patient's heart does not function like a normal heart, he has a lead for further examination. Can we follow the physician's method? What we are appraising is management, i.e., human beings in the context of

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certain activities. We are appraising thoughts, co-ordinated actions in a physical environment, and the specific results of these actions. These thoughts and actions and their results lie within several areas, spheres, or categories. By studying what goes on in these spheres we try to arrive at a judgment as to how far it is rational, logical, well-co-ordinated; though, like the physician, the man who tries to appraise management endeavours to distinguish the sound from the unsound and possibly to find remedies he cannot apply rigidly the physician's method of diagnosis, because he is not dealing with accepted norms and patterns. Though there are dissimilarities among healthy human bodies, the dissimilarities among the environments in which managements act are considerably greater. There is, however, a general similarity among managements in the sphere of basic environments, in the circumbient condition of thought and action. Trying to concentrate, or compress these spheres of thought and action down to the smallest possible compass, the author thinks that he may be close to the truth in classifying them in logical sequence as Objectives and Basic Policies, Tools and Facilities, Organization and lastly, the Human element, or personnel. By examining the general posture struck in these four spheres of thought and action by a particular management and by following up the examination in detail the author feels that sufficient material can be gathered for a fair appraisal, whether the management in question operates in industry, in merchandising, in hospitals or colleges, or in some other type of administration.

In every one of these spheres, and in their ramifications, definite courses must be followed to reach the desired aims. These aims have to be known and the aims, as well as the courses should be embodied in *policies*. The availability of well-conceived policies, their enforcement, the degree in which they are adapted to the intrinsic tasks of a particular enterprise, the mechanism for alteration of policies, and the results of their application — these are the criteria upon which a management can be appraised. Every case, of course, has to be examined on its own merits, with all the peculiarities of the institution taken into account.

The Four Spheres Reviewed

By Objectives and Basic Policies we mean the main aims and the fundamental principles followed to reach these aims of an enterprise.

Under Tools and Facilities we group working capital, machinery, buildings, stores, patents, rights, in other words all the physical and intangible assets needed for reaching the objective.

"Organization" comprises the structure needed to carry out the objectives.

The last, but not least important, sphere of considerations relates to the "Human Element" entrusted with the putting to work of the tools and facilities within the framework of the organization, for the attainment of the objective.

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Within each one of these spheres *policies* are available or should be available in some form or other. Each action of management and the results of the actions are within one or other of the mentioned four spheres, namely objectives, tools and facilities, organization and men. If in every one of these fields policies are soundly conceived, thought out in the necessary detail, adhered to and constantly checked and revised in accordance with changing conditions and if decisions given within the controlling framework of basic policies are properly executed, then we can assume that we are confronted with a management which should be appraised favourably.

What are the policies needed within the spheres mentioned? What should they cover? What policies would one look for when appraising management?

Objectives

Starting with objectives, it might be stated at the outset that objectives are not dreams, but realizable aims. The submarine was a sort of a dream at the time of Jules Verne, and the jet plane was not even dreamed of. The automobile industry has announced that research work has been started in connection with the application of atomic power to automotive transportation. The atomic strato-ship, a dream today, may become a realizable objective within a few decades. When the decision is reached to manufacture such ship — basic policies will be set. These basic policies will encompass both the objective and the means to reach it. If a corporation is organized for the construction of this atomic strato-ship, the objective and the basic policies relating to the purposes, the scale of the undertaking, and the capital will be incorporated in the charter. The objective may be to build one or a series, to build one kind or several kinds. When Henry Ford decided to assemble cars on the conveyor line, he was not dreaming but had in front of him the clear objectives of getting parts in quantities, assembling them in proper sequence on the line, and sell cars in quantities at a price as low as possible. The first time he was asked to deliver cars in various colours, he said they could be made in any colour, as long as it was black; making cars in various colours would have represented for the moment a change in basic policy for Ford. At the level of the technical facilities existing when he was making the first models, production of cars in various colours would probably have meant a reduction in the number produced which would have been contrary to the basic policy.

Basic policies will seldom be available in the form of a manual. They may be conveyed by tradition and known only to the executives and the personnel. A newcomer, trying to appraise management, may have to ask numerous questions in order to find out what they are. An enterprise without basic policies of some kind can scarcely be imagined.

Sometimes basic policies are vague or inconsistent. When they are transmitted by word of mouth and considered as traditions, they are

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liable to be interpreted by different individuals in different ways, causing chaotic conditions. When the objective is clear, the drafting of basic policies — black on white — should not encounter any difficulties.

Good and sound objectives do not necessarily make a company profitable. In some cases expensive research is needed before profits can be realized, and there is always the risk that the expenses incurred in research will be a total loss. Would we judge disparagingly a management which is spending considerable amounts upon worthwhile objectives?

A good management has a definite programme, as the captain of a ship has a charted course which he follows. A management which is hazy about its future actions, which has no objectives, no aims in view, no target to shoot at, is like the manufacturer of horse-whips who sees the days go by, his sales drop, his income statements in the red, but who continues to boast that he is making the best whips in the world!

Tools and Facilities

In order to carry worthwhile objectives in industry and in the merchandising field to their successful conclusions, plants, machinery, warehouses, stores and tools are needed.

The inadequacy of facilities can often be judged by the naked eye of an observer who is not an expert in the investigated field, but very often specialized technical knowledge is necessary to ascertain the adequacy or inadequacy with precision.

Progressive management will have definite *policies* relative to the renewal, modernization and maintenance of tools and facilities. If, for example, at present these tools and facilities are not adequate, management policies may reveal that improvement is being planned.

We should not judge management only by the technical facilities, premises, etc., which are not at its disposal now, but also by the plans for continuous maintenance, constant improvement, constant replacement of the obsolete by up-to-date, modern ones. Continuous study of the present and forthcoming technical progress (patents, inventions) is proof of foresight. Maintenance is a huge problem. Some plant managers scream for help only when they are in trouble, when they are on the verge of stopping production due to imminent breakdown. Others have their facilities constantly well maintained, constantly inspected with object of detecting a possibility of breakdown, and so preventing it. The difference between good and bad maintenance may mean the difference between black and red figures in the financial statements.

A management appraisal would certainly be incomplete without an investigation of the maintenance *policies* and without an examination of the work being done to keep the firm in step with technical progress.

Availability of working capital, and of policies and measures to correct malfunctioning should be subject to scrutiny. The availability of an established line of credit for seasonal needs and of sufficient insur-

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ance coverages should also be investigated. Such availabilities serve as measuring rods of management foresight.

Policies with regard to maintenance of facilities, tools, constant study of new machinery brought onto the market, patents in force as well as patents applied for, comments of the professional press in these matters, should be supplemented with procedures specifying precisely the duties of every department concerned in connection with the execution of the policies.

With regard to the third sphere, *Organization*, it is practical and customary to reflect the external fabric of an organization in charts, showing the lines of authority and responsibility among the staff and line executives. These charts should comprise all activities from receiving to shipping, including sales, finance, accounting, procurement, engineering, research, etc., and should be supplemented with job descriptions delineating functions, responsibilities and authority.

An excellent job in this connection has been done by the Standard Oil Company of California. The Management Guide published by this company in 1948 may serve as model for progressive executives, anxious to conform to a good pattern.

No evaluation of management is possible without a thorough study and appraisal of the organizational framework, created for the successful achievement of definite objectives.

The "*Human Element*" active within the framework of an organization should enjoy pleasant working conditions and reasonable job security to contribute to the successful achievement of objectives. Progressive companies have established practices with regard to placement, training, promotion, profit sharing, granting of rights to privileged subscriptions, vacations, sick-leave, severance pay, awards for suggestions and for long term services, etc. Personnel manuals embody the policies and procedures, regulating the relations between employer and employees. Important is not only the wording of these policies, but also the spirit in which they are being carried out. Every rule may be subjected to interpretation: the interpretation may not conform to the intention of the initiator and contribute to a distortion of a well meant project. An evaluation of the personnel policies should encompass, therefore, the availability of sound policies, as well as the manner in which they are being put into effect.

Summarizing, it should be mentioned that the reaching of objectives by industrial, merchandising or financial enterprises is based, just as the attainment of its goals by a political body, upon *policy* considerations. Well conceived policies, closely adhered to, are proof of good management. By examining the policies in the stated four broad spheres of economic endeavours, and by ascertaining whether and how these policies are being adhered to, it is possible to arrive at a reasonably valid appraisal of managerial quality.

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Education in Industrial Accountancy . . .

By KENNETH F. BYRD, M.A., B.Sc. (Econ.), A.C.A., C.A. (S.A.),
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Is the present curriculum for industrial and cost accountants adequate? In this article, the author suggests that there is a need for some of the liberal arts subjects in the accountant's programme of studies; that accounting courses themselves should be imaginatively taught at a university level. He stresses the value of studying the history and development of accounting and of a comprehensive knowledge of the special problems of today.

AT THE outset it should be stated that, in the title of this paper, the word education was chosen for its fullness of meaning. In addition to its interpretation in the dictionary as "systematic instruction" there is the "intellectual and moral training" which the dictionary ascribes to the verb "to educate". Systematic instruction might be mere drill but education is infinitely wider than this. If specialized education in industrial accounting is obtainable in the university then it is there that such education is, or should be, best obtained. Reference will be made to the desirability of obtaining a university degree as a first qualification for an industrial accountant, but this must not be taken as excluding the practicability of satisfactorily qualifying without such university training. The essential characteristics of the required education must be the same, whether it is obtained at the university or by study at home.

Industrial and General Accounting

Industrial or cost accounting is a specialization of general accounting. It follows from this that, before a study of cost accounting begins, the student must first have acquired an adequate knowledge of general accounting, not merely of its mechanics but of its aims and objects and its essential principles. This, above all, is fundamental to the development of cost accounting to anything like professional status. The general training is basic to the specialized.

Training in General Accounting

Education in accounting as in any other subject must aim always at training the mind and forming the judgment, at developing the enquiring habit of mind which does not stop at mechanical rules. One danger, ever-present to teacher and student alike, is that of accepting as fact what is merely tradition, perhaps unsupported by reasoned principles, or at least out of line with conditions as they change down the years. If this danger is to be avoided then both must condition themselves to the necessary analytical and critical approach. In a university or any other school of learning, of course, the initiative in this connection should come from the teacher, who will never allow his subject to be dealt with as if it were a matter of mechanical drill. That is why the university is a proper place, and indeed the best place, for the study of such a practical subject as accounting. Any teacher who merely drills

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his students in the university is failing hopelessly in the noblest of all tasks — the training of youth for a full and rounded life, with a well-formed judgment adaptable to the changing needs of the times. Historically, tradition may be a fine thing, lifting and dignifying a subject by intriguing us to trace its growth from early beginnings. But tradition wrongly perpetuated as a guiding principle may be completely stultifying. If a thing is done simply because it always has been done, then it certainly needs re-examination and justification, as changing conditions present their ever-changing problems. About no subject is this more true than it is about accounting at the present day.

R.I.A. Courses of Study

At the present time there is only one course in industrial accounting in Canada leading to a degree designation. This is the R.I.A. course of study sponsored by the Society of Industrial and Cost Accountants. Offered by Provincial Societies in every province in co-operation with 22 Canadian universities, this course is given by both correspondence and lecture courses.

In order to qualify for the designation "Registered Industrial and Cost Accountant" (R.I.A.), students must complete a four year educational programme comprising the following subjects: Accounting I, Business Mathematics, Accounting II, Industrial Legislation, Fundamentals of Cost Accounting, and Advanced Cost Accounting. In addition, each candidate for the degree must write an original Thesis on cost accounting and acquire no less than four years practical experience in cost accounting or an allied field.

A Liberal Education for the Cost Accounting Student

ECONOMICS:

Before considering the specialized subject of industrial accounting it will, perhaps, be well to think of one or two other subjects which should go with it and condition the study of it. Whether it be in the curriculum for a university degree or in a curriculum designed exclusively for the training of industrial accountants the main emphasis must be placed on theory. And if there is one subject which will help the young accounting student in this respect it is surely the subject of Economics. A good industrial accountant must benefit immeasurably from a thorough study of the principles of economics — "the practical science of the production and distribution of wealth, (also) condition of a country as to material prosperity", as the *Concise Oxford Dictionary* defines it. In professional accountancy throughout the world there seems today to be a growing acceptance of the wisdom of including this subject in the training of students, and the need seems greater for cost accountants. Consider the theory of income, for example. Is there any area in which the accountant, industrial or otherwise, and the economist have greater need to study and thoroughly appreciate each other's point of view? Yet there is no place for Economics in the curriculum of

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studies for the R.I.A. examinations in this country. There is, instead, Business Mathematics, of a standard which should be covered by the high school curriculum, two courses in Accounting, one in Industrial Legislation, one in Industrial Organization and Management and two in Cost Accounting. Clearly this is a restricted and specialized curriculum with no trace of a broad cultural element. That is why it would seem that, as a training for cost accountants qualified for professional status, it should follow the years of training for a university degree, perhaps preferably even an Arts degree rather than one in Commerce.

THE HUMANITIES:

An accountant with trained judgment and specialized knowledge but unformed powers of expression in writing is like an eagle clipped of its wings. All his years in school should have been training him in the powers of self expression, whether verbal or written, and he cannot hope to make up speedily for any deficiency at a later date. The best courses to this end are English and Latin, which has so greatly enriched the English language and is itself a discipline in precision and logical interpretation; also such subjects as History and Geography which add to the fund of knowledge and provide a wealth of reading for forming the powers of expression. In the July, 1953, issue of the *Accounting Review*, a prominent businessman, Robert G. Knight, Vice-President and Treasurer of Walgreen Co., made the following statement in an article on Accounting Education:

"Shall I expose myself to ridicule if I suggest that somewhere in our young accountant's crowded schedule there should be room for a course or two in history, the English essay, or poetry? Not only for the usual reasons but because these subjects stir the imagination. No mental trait is, to my mind, more important to a man who proposes to follow an accounting career in business than imagination. We hear a good deal about initiative. What is initiative, after all, but directed imagination?"

Imaginative Teaching and Imaginative Learning

This imaginative approach should be practised by both teacher and student. No teacher is fully performing his duty unless in all his teaching he is striving to stir the imagination of his students. Similarly, no student will really succeed unless he brings to all his studies a truly imaginative outlook. The students themselves can stimulate the teacher just as the teacher should stimulate the students. But the teacher, himself, has a tool which should be essential to his teaching, and that is the written word of the textbooks which he selects for his students' reading. Very rarely will the spoken words of the teacher suffice for his students' studies. It is quite essential that they should follow a course of reading to supplement what is given them at the university or other teaching institution. For this reason, it is regrettable that so often, in a subject like accounting, the textbooks are dull, prosaic and mechanical. A course in accounting must be something very different from a mere succession of exercises in accounting mechanics. If the textbook proceeds, from beginning to end, on the apparent assumption that the student's

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mind can carry only one thing at a time and that he can learn only by constant repetition, parrot fashion, of certain rigid rules, then this is a book of accounting drill or, more properly, bookkeeping drill. It is not a fit medium for training in accounting because it lacks all that incentive to the imagination, all that stimulation of the student's critical and enquiring faculties, all that widening of his vision without which, from the very beginning, the subject never rises above the plane of soulless, mechanical drill. Such books show such an appalling lack of faith in the students' abilities. If accountancy is this merely mechanical bookkeeping, what is it doing in the curriculum of the universities? It should not be taught there at all. In truth, however, the subject is as much a subject for university teaching as any other and if it is properly handled, at least a first course in accounting is a proper one even for an arts degree. The Arts professors will never be persuaded of the truth of this, however, unless the Accounting professors, in their teaching, lift the subject from its narrow, rigid framework, and give it light and breadth and adaptability to the varied circumstances for which it is so sorely needed. There are good books and if the best seem somewhat lacking in the quality of stimulant to the student's questing spirit then let the teacher supplement them by his own imaginative teaching. The following passage from *Hamlet* expresses precisely the challenge which should be presented to the students:

"Sure He that made us of such large discourse,
Looking before and after, gave us not
That capability and god-like reason
To fust in us unused."

Cost or Industrial Accounting

In this more specialized field, which is perhaps the true subject of this paper, although the education of the industrial accountant comprises all that has already been discussed, the need for the imaginative approach is paramount. Throughout his course the student should be learning things which are far from merely mechanical — something of the historical development about which the textbooks tell all too little, alternative methods of procedure and their justification, matters under dispute and unsettled problems of the present day.

Historical Development of Cost Accounting

THE EARLY DAYS:

Not a great deal has been written about the history of cost accounting. In a recent publication, however, the student will find, attractively presented in one well-printed volume, much that has until now been available only in scattered articles. In **Studies in Costing*, there is, in the first place, an excellent fifty-page introductory article by the editor on "The Historical Development of Costing". A following article by Florence Edler de Roover deals with "Cost Accounting in the Sixteenth

* *Studies in Costing*, ed. David Solomons, Sweet & Maxwell.

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Century". In these articles the cost accounting of today is linked with its origins. Mrs. de Roover points out that the earliest record of accounting in industry dates from early fourteenth century Italy. It is also interesting to note that, two centuries later, the Medici family in Florence used a double entry system for recording the results of woolsorting, cleansing, combing and carding done in their firm's own workshop. Luca Paciolo, who had earlier written the first book on double entry bookkeeping, had made no attempt to apply his rules to industrial problems, and the Medici practice of using subsidiary ledgers seems to have anticipated by at least two centuries any known writers on the subject. Christopher Plantin, an Antwerp printer, is shown to have kept a ledger and journal in double entry form, in the Italian language, in the mid-sixteenth century, for purposes of his printing and publishing house. He kept a special ledger account for each book printed, charging it with costs of paper, labour and other expenses of printing. When the book was finished the total cost was transferred to a Books in Stock account, similar to today's Finished Goods account. Mrs. de Roover reveals Plantin's accounting system as a double entry cost-finding system three centuries ahead of the earliest of modern times.

THE 19TH AND 20TH CENTURIES:

From the study of the earliest origins the student may learn how little in present day cost accounting is essentially new or original and, coming to the nineteenth century, he will find much that is familiar today. In the development of the factory, France was ahead of England, and Godard's work on industrial accounting, published in 1827, contains many of the common problems — depreciation, the pricing out of materials, perpetual inventory — all in connection with process costing in the glass industry. England awoke to the needs of cost accounting in the last three decades of the nineteenth century and, for the most part, modern tradition stems from that time. Garcke and Fells published their *Factory Accounts* in 1887. It was quoted with approval by Marshall, the great economist, and remained a standard text-book well into the 1920's or later. Even at this early stage authors were arguing against the allocation of fixed overheads to inventories, thus anticipating by some sixty years or so the marginal cost school. The problems of interest on capital, obsolescence and development expenditures were recognized early in this period and the pricing out of materials has been debated continuously down the years. The treatment of overtime pay, the allocation of overheads in general and the question of idle capacity — how familiar they all sound! It is stated in *Studies in Costing* that in 1901 Alexander Hamilton Church, in a brilliant set of six articles in the *Engineering Magazine* on "The Proper Distribution of Establishment Charges", fully discusses the Percentage on Wages, the Hourly Burden Plan or the Direct Labour Hour Rate, the Machine Hour Rate and the problem of Idle Capacity. He develops the idea of the production centre, so familiar to the student today. For idle capacity he has the

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wrong solution of a monthly supplementary rate, over and above the normal machine hour rate, to attach all unallocated overheads to jobs in the ratio already adopted for the allocated portion. Nevertheless, he propounds the problem for later years to develop. From a consideration of the past a good student will obtain encouragement for the further development of cost accounting ideas. If there is one field in which new areas of thought must be opened up with changing industrial conditions it is the field of cost accounting.

The Problems of Today

If cost accountants are being trained correctly, they will be studying the special problems of the times, during the formative years of training. Among these, first and foremost, is the interpretation of Business Income, viewed differently by the economist, the taxing authority and the average cost accountant. Under this heading come: (1) the effect of inflation on the calculation of business income (with special reference to depreciation provision); (2) the interpretation of "market" in the accountant's conservative "cost or market, whichever is lower" valuation of inventories; (3) the question of fixed overhead allocation and the marginal cost theory to which reference has already been made. If the cost accountant does not, during his years of training, think these things through for himself, is he likely to think it necessary after he has qualified? He is then far more likely to follow the path of tradition and continue to do what has been done for decades simply because it *has* always been done. Consider these problems:

INFLATION IN ACCOUNTS:

The crucial costing problem in this age of inflation is whether, in calculating profits, the accountant should simply charge off as a cost the proportionate part of the historical cost of a depreciable asset or of such historical cost converted into dollars of the current balance sheet date. It is obvious that, in a time of inflation, selling prices will rise after trading goods have been bought but before they are sold. If the costs of these goods, at the historical price, is offset against sales at the inflated selling price, then clearly the resulting gross and net profit will include an inflation profit not represented by any assets other than inflated dollars. These inflated dollars will need to be reinvested in inventories at their inflated money values simply to *maintain* the inventory quantities, *not to expand* them. They cannot, therefore, in any true sense of the word represent profit. Similarly, in the case of depreciation of depreciable capital assets, the funds representing the depreciation charge made in calculating profits need to be sufficient to provide (if invested, as they normally are, in further capital assets), a sufficient volume of dollars, at the date of replacement of the depreciated asset, to *maintain* the productive capacity of the concern without raising more capital. Here again the saleable value of the manufactured product, expressed in dollars at the time of sale, will have risen in (depreciated)

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dollar value. Consequently, in determining profits, the increase in dollar value of sales needs to be offset by the increase in the dollar value of the depreciation provision on the capital assets used in manufacture. It is interesting to note that the Institute of Cost and Works Accountants in Great Britain has now come right out into the open in favour of both these propositions (never forgetting, however, that the income tax authorities will ignore the reduction of traditional profits, for income tax purposes.) They have published a book on the subject: *The Accountancy of Changing Price Levels**. They state unequivocally: "The replacement cost used for calculating the amount charged in costs should be the current, or notional, cost of replacement."

"It is essential that the amount charged to costs for the replacement of assets should be in close accord with the price conditions ruling at the time of manufacture." Similar recommendations have now been made by one of the bodies of professional accountants in Britain, †The Institute of Certified and Corporate Accountants. It is known also that a large section of the Society of Incorporated Accountants and Auditors is in favour of the new practice, but as yet The Institute of Chartered Accountants is, as a body, adamant against any departure from tradition. In the United States, while the American Institute of Accountants is equally faithful to tradition (though many of its foremost members are the outspoken champions of reform), an important publication by a mixed committee financed jointly by the American Institute and the Rockefeller Foundation has made recommendations for the preparation of supplementary accounts, giving effect to provision for removal of inflation profits in the manner proposed, though depreciation on current or replacement values would not be charged in the books. What is more, the committee recommended that the auditor should report on the fairness of the supplementary accounts. In Canada no official pronouncement has yet been made by the profession, although the Legislation Committee of the Society of Industrial and Cost Accountants is currently conducting a survey of Canadian business to determine the effect of replacement cost depreciation in this country. It is not necessary to give a detailed description of the usual points against conversion of historical costs: the argument that it favours common shareholders while preferred shareholders and bondholders have no protection; the argument that the taxing authorities must have funds, so that allowing depreciation on converted values will be countered by an increase of tax rates; the pathetic argument that it is substituting the unknowable for the known, the incalculable for the accurate; the argument that times of deflation will lead to an outcry for reversal of the arrangement. There is a wealth of possibilities in this direction for stimulating the thoughts of the students. Two types of questions should be set: (1) The theory question requiring them to discuss the meaning of business income and

* *The Accountancy of Changing Price Levels*: Gee & Co., London, 15/- . Institute of Cost and Works Accountants.

† *Accounting for Inflation*, Gee & Co.

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to develop their own thoughts on this burning question, showing by appropriate references evidence of having read the various authorities on the subject; (2) A question requiring the application of simple techniques for conversion of historical costs by the use of indices given in the problem; requiring also interpretation of the results and suggested advice to be offered to the management for dealing with the situation. The students *must* be tested on this vital question, but the fact of the matter is that *it is not being done in our public examinations*. The students are *not* being made really conscious of one of the most vital costing problems of the day — the prevention of serious impairment of industrial capital simply through distribution of capital as if it were really income, and its treatment as income in the hands of the recipient shareholders. This is a serious challenge to the accounting bodies in this country, whether they provide for the profession of public accountancy or industrial accounting in its many forms.

These then are the problems which should be exploited to the full with the students. They must not be satisfied merely with the teacher's arguments repeated to them in parrot fashion. Economist and cost accountant come close together again with the problem of joint costs, which affords ample ground for a good student to show initiative and evidence of wide reading. The whole subject of depreciation provision is another ample field. How many students could write a really intelligent essay balancing the various methods against each other — straight line, diminishing balance, annuity, sinking fund, revaluation and the so-called "user" basis? The majority will know the accounting treatment, perhaps; but they have no very clear ideas as to the why and the wherefore.

Guidance to the Management: Budgetary Control

All the trend of recent years has been strongly towards even greater emphasis on the need for looking to the future and not merely at the past. Here is the essential aim of standard cost accounting and budgetary control. There is a grave danger that, in concentrating on the solution of lengthy examination problems requiring the use of double entry accounting, the student will learn the mechanics of standard cost accounting and the treatment of the different variances, without a full understanding of the implications and of the use of the results for the guidance of management. The subject of budgetary control has to be studied in the two divisions: the long period budget and the short period budget, and the necessities of the former must never be overlooked in the details of the latter. The problems of the short period are much easier and they are given most attention by the text books. The long period problems, such as that of reinvestment of capital released on the expiration of life of a long-term and fully depreciated asset, are just as important as those of original investment — estimates of future, long term market conditions as to costs and revenues, and comparison with alternative investment opportunities.

EDUCATION IN INDUSTRIAL ACCOUNTANCY

Problems of the short period are firstly as to the most suitable period for each particular concern. Then come questions such as the inclusion or not of obsolescence and other fixed costs, and how they are to be calculated. The factors leading to the information on which price and output decisions are to be based are many and complicated and no student can master them, on any sort of mechanical basis. In this particular phase of industrial accounting is to be found much that most justifies the subject as a university course, for it trains and stimulates the judgment gives particular opportunity to the student who will make good management material — to the future controller above all.

The Controller

The need for thorough training for controllership purposes, cannot be emphasized too strongly. This does not mean that it is necessary to have special courses particularly directed to controllership. If all accounting and costing courses provide the stimulants to thoughtful analysis and appreciation of basic concepts, if they allow nothing to be accepted by our students simply because it is done, then those students who are naturally potential controllers will come to the fore.

Successful budgets are the result of team work from beginning to end, the co-operation of all sections in the industrial concern. The controller does not, in fact, prepare the budget or determine standards, though it is he who will usually present them to the management. It should be made clear to each department that it bears its own responsibility for its budget.

The controller heads the accounting department and as such he must have equivalent status to the heads of the production, research and other divisions, and must be responsible direct to the president. He must himself be a member of the executive, with a voice in all decisions of policy. Included in the finance division will be the accounting, costing and internal audit departments. By this means control is centralized in the controller but responsibility is decentralized in the various departments. From first to last the controller must be a man of trained judgment.

Conclusion

Francis Bacon said, on the subject "Of Studies", some 350 years or so ago: "Reading maketh a full man; conference a ready man; and writing an exact man," and he added "if he read little he had need have much cunning to seem to know that he doth not." This latter is the problem of every examinee, but it is to be hoped that our education of the students, if we are teachers, our encouragement and example if we are employers, and our own studies if we are students preparing for our R.I.A. examinations, will be such as will remove as far as possible the dire necessity for such "cunning".

Reduction in Costs Through Production and Sales Co-ordination . . .

By R. M. ASHNER,
*Partner, Werner Textile Consultants,
New York, N.Y.*

A new approach to greater mill efficiency and inventory reduction is presented by the author through a description of general applications of long-range planning and a more specific application of short-range planning in the co-ordination of production and sales. His examples, based on the experience of his own company, are drawn primarily from the textile industry, but the same basic principles and conclusions, however, are equally applicable to any business or industry.

COMPANY Planning, like breathing, is an essential, yet often unconscious, requirement for existence. Whether it consciously recognizes it or not, management's continuous job is to lay out plans and then follow up to insure their execution. Management's primary function, then, could be defined in two words: *Planning and Control.*

Despite the practical acceptance of this concept in their daily lives, many mill men shy away from any discussion of formal planning. To these men formal planning, and especially any mention of long range planning, has an unrealistic, academic ring. Some may even suspect subversion at the mention of a Five Year Plan, but if that is a Russian invention it must be one of their better ones, conceived at the same inspired moment when they invented "beizbol".

An Analogy of Management Planning

At the risk of over-simplification, management planning can be illustrated in the terms of a trip from New York to Boston. In arranging the trip, a little planning is required. Road maps are studied, consideration is given to alternate routes and the A.A.A. road service is even consulted. After selecting the route, the time of departure is calculated. During the trip, a little checking and controlling of the plan is carried out. This approach admittedly demands ability to read a road map, requires some time spent in planning and control and even involves A.A.A. membership dues — but it did get the tourist to Boston in time and comfort.

A different approach could have been taken. The tourist could have jumped into the car and driven. At each intersection or crossroad he might have simply selected the road that most appealed to him either for its better surface or superior scenery. Using this method he need not waste time and strain his eyes on road maps and checks. By the same token, however, he need not be surprised if he ends up stranded and out of gas 15 miles south of Providence instead of Boston.

Relate this trip to a company's business operations, identifying the same two routes as profit curves with Boston as a profit and Providence as a loss. The first shows the company that plans, the second the one that does not. The story may be over-simplified, but the moral is clear:

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Company policies and actions must be directed towards the final objective, problems must be anticipated before they become acute and solved in line with these general policies. Waiting until a problem hits squarely with its full impact and then jumping to the nearest solution in sight — with little or no regard for company policies and objectives — can only lead to confusion, conflict and frustration in company personnel and operations.

Long Range Planning

Long range planning for industrial enterprises is not a revolutionary idea. There is a very interesting article on this subject in *Business Week*, September 20, 1952. Many large companies such as Westinghouse Electric Corporation, Standard Oil Company, Monsanto Chemical Company are now planning and forecasting their operations for a period of 2, 3, 5 or 10 years. Of particular interest, is the fact that the two textile firms questioned by the reporter did not believe such planning possible. They were quoted as saying: "How can we make long range plans with synthetics coming in? The fiber we'll be using in 10 years probably hasn't even been put into the test tube yet." "We're vulnerable to too many things, volatile labour, frequent price changes, and now these synthetics. Oh, we've got charts and figures till you're blue in the face, but they're short range. We watch for the danger signals and that's about all." These comments sound somewhat like a farmer saying that since he is not sure it isn't going to rain this season there is no sense planting. In the first place, in spite of considerable new additions to the old established fibers, manufacturing methods have not undergone any revolutionary changes. Manufacturers still spin and weave on the basic cotton, wool and filament systems. Secondly, it seems reasonable that the more changes that are anticipated, the more prepared management should be to meet them, and therefore, the better should their planning be.

Long range planning must integrate and co-ordinate the many dynamic factors that in total make up business operations. Cost Accountants have long been applying planning principles to financial operations. The process of drawing up a budget to forecast operations and then comparing actual performance against it is now commonly regarded as a valuable management tool. The same principle must be applied to all other phases of management functions. Each of these phases presents complex problems requiring considerable technical knowledge and experience. To complicate things further, very few of these problems fall solely within the province of any one department or unit. For instance, a sales problem may closely depend on production, quality, and finance. Gone are the days when a company could be run effectively as a complete one-man show.

Effective planning, therefore, must rely on the specialized knowledge of quite a number of specialists in various fields closely integrated

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into a common view of the company's course and its goals. Teamwork must be the watchword, not piecemeal planning in a departmental or sectional vacuum.

A sound practice that is currently gaining recognition is the inclusion of all talents available to the company on its planning team. Why not utilize, when appropriate problems arise, some of the brains not on the payroll? Why not use the bankers, insurance agents, consultants and lawyers on this team?

Consider, too, the invaluable training ground that a planning team provides for the company. Young executives participating in this team enjoy a bird's eye view of all company operations rarely available elsewhere. This experience prepares and conditions them for future leadership and provides continuity in the development of top management talent.

Formalized Planning in the Textile Industry

Mill managements which are often reluctant to undertake formalized planning programmes are unwillingly forced into them when building new plants or starting new operations. Production, Sales, Personnel and Financial policies must be planned and developed where none existed. Management enjoys first hand experience in planning, provides a mechanism to handle it, and automatically establishes long range programmes and policies. Usually management emerges the better for this experience.

Many mills have gone through the initial planning phase within very recent years. On the other hand, many have also travelled a long way from their foundation planning. The newer mills, therefore, enjoy not only the advantages of new equipment and a more recent operational programme, but also their important by-product: aggressive, planning-conscious management. This, however, does not imply that the newer mills have any monopoly on effective management. Sound management principles can be applied in both new and old mills. The following examples will illustrate this point.

Mill "A" is a relatively new, medium-sized, vertical concern, operating over 1,200 looms. Its management decided to take on a specialty fabric which appeared attractive at the moment, and added some 100 looms for its production. There was no available space for these looms in the Weave Room. A frantic space-hunt started, and an old basement with sufficient floor area was discovered. It was realized that this space was not particularly suitable for weaving, but the path of least resistance was taken and the looms were installed in the basement.

Hardly were these looms started in operation, when it became evident that operating costs — due to transportation difficulties — were excessive. At the same time, a new picker room was being built, making space available in the old picker room. Without regard to an existing plan that envisioned expansion of the card room into the vacated area, the specialty looms were quickly moved into the old picker room.

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Less than a year later, the card room expansion programme became acute and the looms were on the move again. A hasty decision was again made. Raw cotton would be stored in outside rented space and the vacated cotton warehouse could house the wandering looms.

While all this shifting was going on, the bottom dropped out of the specialty fabric market. Today the specialty looms are standing idle in glorious isolation in the cotton warehouse, while the company continues to pay substantial rent for its outside cotton storage. The moves and shifts cost the company some half a million dollars.

By contrast, Mill "B", an old-established mill, has been producing a variety of cotton fabrics for many years. The company is operating nicely in the black and is not and never has been in any financial difficulties because as far back as 10 years ago in the midst of the war boom the management of this mill planned for the post-war period. They experimented with long-staple spinning and adapted their machinery to these fibers. They were among the first to blend man-made and natural fibers. They recognized early the potential savings in improved layouts and automatic materials handling equipment; consequently, even at a time when building construction was prohibited by law, they prepared detailed plans for their future expansion. These plans were scrutinized at leisure by everybody in the mill. The departmental overseers, the union stewards, the personnel manager, the materials handling consultant, the machinery suppliers, the air conditioning engineers, the local authorities, in addition, of course, to the top management of the mill, the plant engineer and the consulting engineers. All lived with the plans. Everybody felt he had a stake in the future development and hundreds of large and small changes were made on paper. When finally the time came and building was possible, they were ready to build one of the finest mills.

Planning Control and Co-Ordination of Sales and Manufacturing

At this point, it might be well to leave the discussion of general planning principles and treat one phase of planning which, at the present time, overshadows most others in importance. That phase is the planning and control of sales and manufacturing and their co-ordination.

According to the definition given to management, it is based on the two components of planning and control. This discussion is not concerned with the personnel and labour aspects; nevertheless it is necessary to go into some of the details of planning.

It may be difficult to understand why such emphasis is placed on this phase of planning at a time when everybody is concerned about work loads, wage rates, taxes, etc. The answer is simply that the potential for cost reduction is usually much greater in these areas and it is felt that this potential is often insufficiently recognized. Corrective action is in the realm of management alone and, therefore, can be made speedily. No long drawn-out negotiations with labour, no government interference stand in the way.

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Cost Accountants will agree that full and constant utilization of the plant's facilities and personnel at top efficiency can do more good to the profit picture of a company than trying to get the last out of work loads and economies in raw material.

The importance of proper work loads and reduction of waste should not be underestimated, but when a plant runs only at 80% of its capacity, or less, costs can be improved faster, and to a larger degree by taking steps to increase the percentage of utilization or efficiency to 90% than by the long drawn out efforts of refining work loads.

Once the mill is working at top efficiency, then usually as a further step for cost reduction, it is the time to concentrate on work loads and waste. It can be realized that in extreme cases it may be necessary to work on all phases simultaneously.

To illustrate the point, the facts and figures on a specific mill would be appropriate. This mill is running three shifts at present, but because of an over-diversified manufacturing programme in specialty lines and because of poor planning of production and poor co-ordination of sales and production, it is working at a very low efficiency. Therefore, the mill is losing an annual sales volume of 4 million pounds.

The fixed costs per pound at this mill are 16c per pound. Four million times 16c amounts to a loss of \$640,000 annually. This sum does not include any profit which the mill makes on every pound of production. If one would add that figure it would come pretty close to a million dollar mark. In other words, this mill is throwing away a million dollars annually just because it has not been able to map out an effectively co-ordinated sales and production programme. The adoption of such a programme would avoid frequent, time consuming changes on their equipment and eliminate excessive down times while looms wait for warp or filling. Our firm has calculated what every per cent increase in efficiency means in dollars and cents. The amount, of course, varies, with the size of the mill, but it always is an astoundingly substantial sum of money varying between \$30,000 to \$100,000 annually for only 1% increase in efficiency.

The figures cited are on the conservative side, because there are many other indirect benefits and additional savings the mill will make as soon as it begins to plan properly, such as: reduction of inventory of goods in process and finished goods, avoidance of panic among top personnel, rush orders, rush production, dissatisfaction of labour, etc.

This is just one example of one mill. Similar calculations could be given for other mills.

One final example: A finishing plant, where due to proper co-ordination and control of production and sales, we were able to reduce the average time of goods in process from 5 weeks to 3½ weeks. It doesn't sound much — only a week and a half saved — but with the quantities going through that plant with an average production of three million yards weekly, it means 4½ million yards less goods in process. At a cost

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of 40c a year this means a reduction of capital requirements of 1.8 million dollars. Calculated at an interest rate of 6%, it means that this plant could save \$108,000 annually in interest alone. Furthermore, due to the physical reduction in inventory this organization was able to discontinue renting outside storage space for which they used to pay \$12,000 annually. Thus, altogether, they save \$120,000 annually just by reducing the time the goods stay in the plant by a week and a half.

It is very hard, often impossible, to express in dollars and cents all the benefits that result from planning and control. It is possible to put a price tag on increased efficiency, reduced inventories, reduction in storage, but how can a price tag be put on such other vital factors as: customer satisfaction and confidence and company goodwill? Similarly, some of the benefits to mill personnel defy accurate dollar and cents calculation, but their practical value cannot be denied. Overseers are relieved of the constant worry and fuss of running their departments and planning their work with little or no idea of what tomorrow may bring. The constant fluctuation of being swamped with work one day and starved for it the next are real and acute supervision problems. Or, how can evaluations be given to the security and consequent pro-company attitude employees develop as a result of steady work, minimum layoffs and elimination of seasonal cycles? Only the long range analysis of labour turnover and attitudes may reveal this.

Benefits to Management

As for the overall benefits to mill management, it would be enlightening to mention a few comments from practical mill men on Sales and Production Co-Ordination and Production Planning. The owner of a large rayon throwing, weaving and finishing plant with a weekly production of almost a million yards stated: "Our ability to keep close control over our sales and order position enabled us, in spite of the depressed situation of the industry as a whole, to keep operating at full capacity with a lower inventory of goods in process and finished goods than ever before."

Remember the peculiar situation of last year in woollen and worsteds, where orders had to be delivered on a very short notice? The manager of one woollen and worsted mill, making hundreds of different styles in many different raw stock-dyed colours, said: "I was able to meet this situation by our ability to accurately plan production through a system of controlled co-ordination of sales and production." He also said that without these controls, their inventory losses on the declining wool market would have been so great that he regarded these controls as a main contributing factor to enable his company to stay in business.

Planning and controls alone will not solve the difficult problems with which mill management is confronted, but it will provide management with accurate facts, based on which the experienced mill man can make the right decision.

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Some specific examples from the experience of our company have been presented to indicate *why* production and sales co-ordination of the *right kind* is so essential to modern mill management today.

Equating Sales and Production Through Co-Ordinated Planning

It is erroneous, however, to think that there is a complete lack of some form of production and sales planning in many mills. Yet, there are plants where there is production dominated planning in which the mill technicians sit down, figure out what they can make, and tell the sales department what it has to sell. This kind of planning was the reason for one large mill to accumulate millions of yards of unsaleable inventories just recently and caused the downfall of its management. In other mills there is sales dominated planning — in which the sales force tells the people in the mill what it wants them to manufacture on short notice, based on the ever-changing market conditions and thus plays havoc with the manufacturing schedules and keeps the mill and its personnel in constant turmoil. Neither kind of planning is company wide co-ordinated planning at all.

The aim of co-ordinated planning is to find the equation between the two factors, namely, sales and production — i.e., what kind of product the plant can make most economically and what kind of product the market will take most readily at profitable prices. It is the job of the co-ordinator to achieve agreement between the sales and the production departments on the best production and sales programme for the company.

To establish the market potential and the production potential requires very careful study. In developing a sales programme, management must rely on the results obtained from market research and analyses and the statistical evaluation of past performances, and combine these facts with the intimate knowledge and long experience of the merchandising manager.

The determination of the manufacturing capacity requires good engineering know-how, existing machinery and plant layout must be evaluated and compared with the latest technical developments to determine which products the plant can produce more economically and of superior quality to those of its competitors.

Once these facts have been established, a sales and manufacturing programme is developed. This programme has as its aim the constant utilization of the productive equipment with as few seasonal variations as possible, and with as small an inventory of raw materials and finished goods as possible. Only a sales programme which will avoid excessive diversification will meet these requirements, and only if these requirements are met will the mill be able to produce at the lowest possible cost.

This sales and manufacturing plan is the foundation for the successful co-operation between the sales department and the manufacturing

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department. It should be used as a yardstick against which actual developments are constantly measured. This is the task of co-ordinated control which keeps a constant watch on manufacturing schedules, mill balance, raw material — in process — and finished goods inventory and last, but not least, delivery schedules and promises.

But how often is this kind of co-ordinated control found to be functioning accurately and instantly providing a clear, continually up-to-date, visual picture for top management? How often has an observation been made of what happens when an inquiry for a big order comes into the President's office? After studying some pieces of paper on his desk, he usually accepts the order and makes some delivery promises. That's usually when the trouble starts. To meet the delivery date, the manufacturing schedule is thrown to the winds. Looms are stopped, production programmes are changed, some departments work overtime, costs go to pieces and even sometimes warps are torn out — yet in spite of all that, the goods are usually not delivered on time. There are many mills to-day that are still using these horse and buggy methods. How many of the poor financial showings of some of the textile mills are due to sticking to such antiquated methods?

Even though they have heard of production planning and sales co-ordination, too few people realize the developments that have taken place in this field in the last few years with developments of modern business machines, greatly improved management methods and systems, new statistical applications, and more scientific approaches to market research. With a properly developed, up-to-date setup, this same president today can call his production and sales co-ordinator and within two minutes and twenty seconds flat obtain the following information:

1. What machines are available for use.
2. At what rate and when the production will come off the machines.
3. What his raw material situation is.
4. What, if any, changes in production schedules must be made.
5. Whether it will affect his cost and how much.
6. Exactly when he can deliver the goods with the assurance that this delivery date can be kept without upsetting the mill and causing him further worry.

All this can be done without adding to red tape and the number of administrative personnel. It actually sets executive ability free.

The difference between the two methods of planning and co-ordination described is identical to the difference between the two alternative methods of preparing the trip to Boston.

The textile industry has a choice. It can arrive at its goal by proper planning, control and co-ordination; or it can flounder along aimlessly with hit or miss decisions and the seemingly easy way out. In one direction lies success and peace of mind; in the other lies ulcers and red figures on the profit and loss statement. Which shall it be?

Student Section . . .

ACCOUNTING II — 1953 EXAMINATION

Comments by J. D. CAMPBELL, C.A., R.I.A.

QUESTION VIII (10 marks)

From the following information, taken from the books of the Canadian Mfg. Co. Ltd. for the year ended December 31, 1952, compute the changes in the company's working capital during the year.

Net Income	\$ 8,000.00
Cash borrowed on mortgage	15,000.00
Loans to officers	17,000.00
Depreciation	12,000.00
Purchases of Machinery	36,000.00
Cash Dividends Paid	23,000.00
Preferred Shares Redeemed	22,000.00
Amortization of Bond Discount	3,000.00
Proceeds of Sale of Capital Stock	7,000.00
Purchase of Stock of Affiliated Company	17,000.00
Appreciation in Market Value of Marketable Securities	10,000.00
Income Tax Assessment Paid (charged to reserve)	9,000.00
Profit on Sale of Marketable Securities	8,000.00

CANADIAN MFG. CO. LTD.

COMPUTATION OF CHANGE IN WORKING CAPITAL, YEAR ENDED DECEMBER 31, 1952

Funds have been applied to:

1. Increase in Fixed Assets	\$ 36,000.00
2. Investment in Affiliated Company's Stock	17,000.00
3. Redemption of Preferred Stock	22,000.00
4. Loans to Officers	17,000.00
5. Payment of Dividends	23,000.00
6. Payment of Income Tax	9,000.00
	<u>\$124,000.00</u>

Funds have been provided by:

1. Net Income	\$ 8,000.00
2. Gain from Sale of Securities	8,000.00
3. Charges not requiring funds:	
Depreciation	12,000.00
Bond Discount Accumulated	3,000.00
4. Mortgage Loan	15,000.00
5. Sale of Capital Stock	7,000.00
	<u>\$ 53,000.00</u>

Funds Provided by Decrease in Working Capital	<u>\$ 71,000.00</u>
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COMMENTS:

The question required that a statement be presented, showing the changes in the working capital. Certain of the items presented in the information given might have been considered, under normal circumstances, to constitute part of working capital and, therefore, would not be taken into the statement. This is particularly so in regard to loans to officers and the income tax assessment. The question was marked on the basis that the various items mentioned to the extent that they affected cash would be considered in presenting the statement required. The one item which was not to be taken into consideration was, of course, the appreciation in the market value of marketable securities.

The answers submitted indicated, in certain instances, a failure to appreciate the nature of the items of depreciation and amortization of bond discount. In certain cases, which were in the minority, the item of income tax assessment paid was considered as a reduction in working capital.

The item of profit on the balance of marketable securities was deducted from the net profit plus depreciation which was apparently carried out on the assumption that

STUDENT SECTION

the item of net income included this item. In these cases, the item was then inserted as a separate item. No indication was given in the answer that the student had made this assumption and, therefore, credit could not be given for the treatment suggested.

Of the students attempting this question, namely, 182 out of 202, an average of 7 marks was attained. In marking this particular question, the student was given credit for the classification of the respective items, either as a source or application, and was penalized in cases where an item was classified incorrectly. In this way, the student was given credit for the individual items in assessing the total marks.

ADVANCED COST ACCOUNTING — PAPER II

Solutions by A. V. HARRIS, C.A., R.I.A.

QUESTION IV (5 marks)

Discuss briefly, five principles that should govern a system of uniform cost accounting through companies engaged in the same business.

SOLUTION TO QUESTION IV (5 marks)

1. The following items should be on the same basis: Freight, Storage, Cash Account Discounts, By-products, etc.
2. Allocation of mfg. expenses to products must be made after the same method.
3. The labour should be divided in the same way: Direct Labour, Indirect Labour, Overtime, Idle Time.
4. Different expenses, on which discussions generally occur, should be agreed upon; for example: Depreciation, the Rate of Depreciation; the Basis of Computation; Original Cost; Replacement Cost.
5. The same rules should be followed re: The Distribution of Selling and Adm. Exp.
6. Analysis and comparison of actual cost and standard cost should be made periodically, as well as the financial statements.

QUESTION III (11 marks)

The Arder Manufacturing Co. fabricates a single product, made of two basic materials — (a) Primo and (b) Secundo.

The first-in, first-out method of valuation is used for both raw materials and finished goods.

Transactions for the year 1952 were as follows:

Materials purchased:

	Budget	Actual
Primo	200,000 lbs. X \$1.00	170,000 X \$1.10
		40,000 X 1.20
Secundo	30,000 lbs. X 1.80	15,000 X 1.70
		16,000 X 1.60

Inventories — January 1, 1952:

Work-in-Process — Nil

Raw Materials:

Primo — 30,000 lbs. at \$1.00 per lb.

Secundo — 7,000 lbs. at \$1.80 per lb.

Finished Goods — 2,600 units at \$16.30 each.

During the year 1952, the following costs and expenses were incurred:

	Budget	Actual
Primo Materials Used	160,000 lbs.	170,000 lbs.
Secundo Materials Used	20,000 lbs.	22,000 lbs.
Factory Overhead Expenses	\$ 30,000.00	\$ 27,000.00
Direct Labour	100,000.00	105,000.00
Selling Expenses	60,000.00	62,000.00
Administrative Expenses	50,000.00	47,000.00
Financial Expenses	10,000.00	6,000.00

It was estimated that 20,000 units would be produced during the year. 25,000 units were produced.

Budgeted Sales for the Year—15,000 units at \$30.00

Actual Sales —18,000 units at \$35.00

COST AND MANAGEMENT

REQUIRED:

1. Schedule of Inventories of Raw Materials and Finished Goods as at December 31, 1952. (Budgeted and Actual).
2. Comparative Statement of the Total Cost of Goods manufactured and sold for the year 1952. (Budgeted and Actual).
3. Comparative Statement of Profit and Loss for the year 1952. (Budgeted and Actual).

SOLUTION TO QUESTION III:

THE ARDER MANUFACTURING COMPANY SCHEDULE OF INVENTORIES AS AT DECEMBER 31, 1952

Raw materials:

	<i>Budgeted</i>		<i>Actual</i>
Primo	70,000 units at \$ 1.00 \$ 70,000.00	30,000 units at \$ 1.10	\$ 33,000.00
		40,000 units at \$ 1.20	48,000.00
Secundo	17,000 units at \$ 1.80 30,600.00	16,000 units at \$ 1.60	25,600.00
	<u>\$100,600.00</u>		<u>\$106,600.00</u>

Finished

Goods:	7,600 units at \$16.30 \$123,880.00	9,600 units at \$14.564	\$139,814.40
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COMPARATIVE STATEMENT OF COST OF GOODS MANUFACTURED AND SOLD (BUDGET AND ACTUAL) FOR THE YEAR ENDED DECEMBER 31, 1952

Raw materials:

	<i>Budgeted</i>	<i>Actual</i>
Opening Inventory—Primo	\$ 30,000.00	\$ 30,000.00
—Secundo	12,600.00	12,600.00
Purchases —Primo	200,000.00	187,000.00
—Secundo	54,000.00	48,000.00
		25,500.00
		25,600.00
	\$296,600.00	\$328,700.00
Less Closing Inventory	100,600.00	106,600.00
	\$196,000.00	\$222,100.00
Direct Labour	100,000.00	105,000.00
Factory Overhead	30,000.00	37,000.00
Cost of Goods Manufactured	\$326,000.00	\$364,100.00
Finished Goods Inventory — Opening	42,380.00	42,380.00
	\$368,380.00	\$406,480.00
Less Finished Goods Inventory — Closing	123,880.00	139,814.40
Cost of Goods Sold	<u>\$244,500.00</u>	<u>\$266,665.60</u>

THE ARDER MANUFACTURING COMPANY COMPARATIVE STATEMENT OF PROFIT AND LOSS (BUDGET AND ACTUAL) FOR THE YEAR ENDED DECEMBER 31, 1952

	<i>Budgeted</i>	<i>Actual</i>
Sales	\$450,000.00	\$630,000.00
Less Cost of Sales	244,500.00	266,665.60
Gross Profit	\$205,500.00	\$363,334.40
Deduct Expenses:		
Selling	\$ 60,000.00	\$ 62,000.00
General and Administrative	50,000.00	47,000.00
	\$110,000.00	\$109,000.00
Operating Profit	\$ 95,500.00	\$254,334.40
Deduct Financial Expenses	10,000.00	6,000.00
Net Profit for Year	<u>\$ 85,500.00</u>	<u>\$248,334.40</u>

